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Mogens Mathiesen

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VENABLE LLP

P.O. BOX 34385

WASHINGTON, DC 20043-9998

EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1. This Office Action is in response to Applicant's after final response filed 12/04/2009.
2. Claims 1, 3-13, 15-22 are pending.

Response to Arguments

3. Applicant has indicated that the prior art (Meeker US 20060205389 A1) used in the Office Action dated 11/19/2009 was commonly owned by the same corporate entity, ABB Research Ltd. Therefore in view of 35 USC 103(c) exclusion the previous Office Action is withdrawn, and replaced by this Office Action which responds to Applicants amendment filed 9/14/2009.

Response to Amendment

2. It is acknowledged that no claims have been amended claims 1, 3-6, 8-13, 15 and 16 have been amended, and 2, 23 have been canceled.
3. Claims 1, 3-13, 15-22 are pending.
4. In view of Applicant's amendments to claim 13 to remove "which when run" the rejection to claim 13 under both 35 USC 112 2nd paragraph and 35 USC 101 has been withdrawn.

35 USC 101

6. As per Claims 15-18 the claims recite "computer readable medium" and in view of the specification, page 16 lines 5-7 further defining the medium as "magnetic disk, CD-ROM, or DVD, Hard disk..." This indicates that the medium is drawn to storage medium and not to any form of energy, waves, or any form of propagation or the like, therefore complies with 35 USC 101.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 3, 8, 13,15-17, 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vines et al. (US 6006171)** as in view of **Meeker (US 6594621 B1)**.

As per Claim 1, Vines discloses:

- **A method to carry out at least one of retrieving or accessing information about an equipment, plant or process in a facility comprising a plurality of devices and one or more control systems for process monitoring and control, wherein energy-related information and other data for each said device is stored in a one of said control system systems, at least by (Abstract) where it is known in the art that parameters for monitoring equipment incorporates “energy-related information”.**
- **selecting by a maintenance user using a hand-held or wearable portable computing device one of said equipment, plant or process, at least by (col. 4 lines 9-11) “selection of process control monitoring station, association of equipment tag names in the maintenance database with process control variables” where the selection of the monitoring station is in association with the selection of which equipment will be monitored.**
- **configuring a software entity recorded on a computer readable medium with an identity of the selected said equipment, plant or process, the software entity**

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comprising links to information regarding all equipment, plant, process monitored and controlled by the control systems, at least by (col. 4 lines 21-32) where DMM is the software claimed, Ref. 450b is the identity of the equipment, Ref. 450a is the information pertaining to the equipment that can be monitored.

- **retrieving information associated with said selected equipment, plant or process with the configured software entity, the information comprising maintenance information, technical information, and contact information for internal users having technical knowledge about the selected equipment, plant or process**, at least by (col. 5 lines 51-60) where the work order is the maintenance information, and (col. 6 lines 1-6) crew assigned to do the work is the people knowledgeable about selected equipment otherwise they would not be assigned.
- But Vines fails to specifically disclose: **(a) a maintenance user using a hand-held or wearable portable computing device and (b) presenting or displaying on said portable computing device at least information about a new event or an alarm for said selected device and a the location of said equipment, plant or process to a maintenance user, utilizing by the maintenance user the information to address the new event or alarm, and contacting the internal users about the selected, equipment, plant or process if the maintenance user cannot address the new event or alarm with the retrieved information**

However, **Meeker** teaches the above limitation **(a)** at least by (col. 5 lines 59-52) "Portable processing device 38 is a conventional handheld computer having a screen and keyboard. Device 38 has a port adapted to connect to central processing system 32 ", and **Meeker** teaches

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limitation **(b)** at least by (col. 6 lines 38-40) “A service technician can carry device 46 to various inspections sites, identify his/her location, and be prompted by device 46 with instructions for the appropriate service. In some embodiments, device 46 will be fitted with a bar code reader for scanning the identification codes at a specific inspection sites, so that device 46 can automatically respond with instructions that are appropriate for each site...(col. 6 lines 52-54) Device 38 will display a message requesting the operator to visit a specific inspection site, for example, inspection site 12...(col. 7 lines 48-49) violation of the standards will likewise be recorded in database 36 for later reporting ...(col. 8 lines 33-44) present system can issue instructions for service or maintenance. In step 68 of FIG. 2 the conditions previously calculated in steps 58A, 58B, and 58C are used to produce corrective work orders and also to send data to a customer's CMMS system (step 70)...(col. 8 lines 58-68) technician actually performing the required maintenance or service can carry portable device 46 to a first location indicated in an itinerary downloaded by system 32 into device 46... can later acknowledge that the required task was performed and put in appropriate additional comments or information”, which discloses the violation and service order as the identification of a new event, and alerting the technician in the itinerary as contacting the internal users, and further more the additional comments can include anything related to the service such as the inability to address the service.

Therefore would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Meeker** into the teaching of **Vines** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of monitoring and performing at least all of the test, diagnostic, and maintenance operations without being restricted to one location increasing mobility.

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As per claim 2, canceled.

As per claim 3, claim 1 is incorporated and Vines further discloses:

- **assigning the new event or alarm for said equipment, plant or process to a maintenance user**, at least by (col. 6 lines 4-6) “crew assigned to do the work”.

As per claim 8, claim 1 is incorporated and Vines further discloses:

- **configuring a technical information link of component of a said equipment, plant or process with an identity of an internal user with access to relevant technical information**, at least by (col. 6 lines 1-6).

Claim 13 refers to a computer program product for retrieving and/or accessing information about an equipment, plant or process comprising a computer readable medium and computer code means corresponding to method claim 1, and is rejected under the same reason set forth in connection to rejections of claim 1. Where **Vines** further discloses a computer program product on computer readable medium at least by (claim 10).

Claims 15, 16, 17 refers to a software architecture recorded on a computer readable medium for retrieving and accessing information about an equipment, plant or process comprising a plurality of devices and one or more control system for process monitoring and control corresponding to the method claims 1, 2, 2 respectively, and are rejected under the same reason set forth in connection to rejections of claims 1, 2, 2 respectively above. Where **Vines** further discloses a computer program product on computer readable medium at least by (claim 10).

Claims 19, 20 are control system claims corresponding to the method claims 1, 2, respectively, and are rejected under the same reason set forth in connection to rejections of claims 1, 2 respectively above. Where **Vines** discloses a system at least by Fig. 1.

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As per claim 21, claim 1 is incorporated and Vines further discloses:

- **wherein the maintenance information comprises at least one of service history or service documentation**, at least by (col. 5 lines 51-54) " track the history of work that has been performed on a specific piece of equipment by viewing the equipment history screen shown in FIG. 8"

As per claim 22, claim 1 is incorporated and Vines further discloses:

- **wherein the information further comprises system data, user data, object data, technical information, specification, supplier information; a user knowledgeable about the selected equipment, plant, or process; a user responsible the selected equipment, plant, or process; users trained about the selected equipment, plant, or process; technical drawings of the selected equipment, plant, or process; contact information regarding users of the selected equipment, plant, or process; or safety information regarding the selected equipment, plant, or process**, at least by (col. 5 lines 49-60), (col. 6 lines 7-15), (col. 5 lines 16-29).

As per claim 23, canceled.

9. **Claims 4-7, 9-12, 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Vines and Meeker further in view of **Tonack (US 7120830 B2)**

As per Claim 4, Claim 1 is incorporated and further neither Vines nor Meeker discloses:

- **retrieving an address for an external user or expert and presenting the address to the maintenance user.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 4-26) teaching a maintenance coordination software, where maintenance calls are placed and maintenance

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technicians are made aware of the maintenance calls in a number of ways; through a terminal listing, email or pager calls, and possible email server can send out notifications to particular locations so that specific technicians related to the locations are notified. Also (col. 10 lines 43-44) “wherein the remote computer is further configured to relay the content of the alert to a maintenance technician”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 5, Claim 4 is incorporated and further neither Vines nor Meeker discloses:

- **establishing contact between the external user or expert and the maintenance user.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 4-26) teaching a maintenance coordination software, where maintenance calls are placed and maintenance technicians are made aware of the maintenance calls in a number of ways; through a terminal listing, email or pager calls, and possible email server can send out notifications to particular locations so that specific technicians related to the locations are notified. Also (col. 10 lines 43-44) “wherein the remote computer is further configured to relay the content of the alert to a maintenance technician”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker**

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because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 6, Claim 4 is incorporated and further neither Vines nor Meeker discloses:

- **establishing a shared display or shared computer application contact between the external user or expert and the maintenance user**

However, **Tonack** teaches the above limitations at least by (col. 9 lines 21 – 35)

“maintenance coordination system” where the system is used by operators, technicians and other users for making repair calls, check equipment history process, enter production equipment status, trend analysis process, etc.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 7, Claim 1 is incorporated and further neither Vines nor Meeker discloses:

- **configuring a selected technical characteristic of the selected said equipment, plant or process with an indicator of a high, medium or low priority for returning the selected said equipment, plant or process to a normal state.**

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However, **Tonack** teaches the above limitations at least by (col. 6 lines 1-18) “indicate the operable condition of the machine....Select Problem Code....Operator Notes” where each of these data fields provides the condition of the device providing information which can be used to prioritize the importance of the repair to the failed device. Furthermore (col. 6 lines 49-53) “maintenance and repair technicians can better prioritize their response to service calls if they are experiencing multiple simultaneous failures.”

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker** because one of ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 9, Claim 8 is incorporated and further neither Vines nor Meeker discloses:

- **configuring said equipment, plant or process with an identity of the internal user with dependent on information recorded in the internal user profile.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 10 – 14) “request may include an instruction to list only maintenance calls in a particular location or relation to a particular type of production equipment. Thus, maintenance technicians may focus their attention on production equipment only within their area of responsibility.”

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker** because one of ordinary skill in the art would have been motivated to use such a modification

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for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 10, Claim 8 is incorporated and further neither Vines nor Meeker discloses:

- **configuring said equipment, plant or process with an identity of a user with dependent on information recorded in the internal profile classified by any from the list of: responsibility, training, certified qualification, work experience.**

However, **Tonack** teaches the above limitations at least by (col. 7 lines 10 – 14) “request may include an instruction to list only maintenance calls in a particular location or relation to a particular type of production equipment. Thus, maintenance technicians may focus their attention on production equipment only within their area of responsibility.”

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 11, Claim 1 is incorporated and further neither Vines nor Meeker discloses:

- **attaching a user observation to the retrieved information associated with said equipment, plant or process as any from the list of: a text message, a video clip, a photograph, sketch, sound recording.**

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However, **Tonack** teaches the above limitations at least by (col. 8 lines 29 - 51) disclosing information entered by the technician such as information related to the repair efforts.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

As per Claim 12, Claim 1 is incorporated and further neither Vines nor Meeker discloses:

- **carrMeeker out a repair, re-configure, re-programming or replacement of a faulty part of said equipment, plant or process based at least in part on technical information associated with said equipment, plant or process retrieved and/or presented utilizing the software entity.**

However, **Tonack** teaches the above limitations at least by (col. 8 lines 29 - 51) “During the repair effort or upon its completion...” the technician has the ability to enter information related to the repair efforts.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Tonack** into the teaching of **Vines and Meeker** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a maintenance coordinator in a system that automatically detects faults in a system so together provides an efficient way to coordinate service request with corresponding technician.

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Claim 18 refer to a software architecture recorded on a computer readable medium for retrieving and accessing information about an equipment, part or process comprising a plurality of devices and one or more control system for process monitoring and control corresponding to the method claim 4 and is rejected under the same reason set forth in connection to rejections of claim 4 above. Where **Vines** further discloses a computer program product on computer readable medium at least by (claim 10).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS TRUONG whose telephone number is (571)270-3157. The examiner can normally be reached on MON - FRI: 7:30 - 5:00 PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mahmoudi Tony can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis Truong/
Examiner, Art Unit 2169

/Tony Mahmoudi/

Supervisory Patent Examiner, Art Unit 2169